WHAT IS CLAIMED IS:

1. A compound having the formula

or a pharmaceutically acceptable salt thereof, where R¹ is hydrogen, an alkyl, aralkyl, hydroxymethyl, carboxymethyl, acyloxymethyl or trialkylsilyl group, or a group –CH₂NR³R⁴ where N is a linking nitrogen atom and where (a) R³ and R⁴ are independently selected from hydrogen and alkyl, alkenyl, hydroxyalkyl and alkoxyalkyl groups; (b) R³ is hydrogen or an alkyl, alkenyl, hydroxyalkyl or alkoxyalkyl group, and R⁴ is –COR⁵ where R⁵ is hydrogen or an alkyl, alkenyl, hydroxyalkyl or alkoxyalkyl group; or (c) R³ and R⁴ taken together with the linking nitrogen atom form a saturated 3- to 7-member heterocyclic group.

- 2. The compound of Claim 1 where R^1 is an ethyl group.
- 3. The compound of Claim 1 that is a free base form of 4-amino-3-propionylphenyl-1,4'-bipiperidine-1'-carboxylate.
- 4. The compound of Claim 1 that is a salt of 4-amino-3-propionylphenyl-1,4'-bipiperidine-1'-carboxylate with an acid selected from hydrochloric, hydrobromic, sulfuric, methanesulfonic, phosphoric, nitric, benzoic, citric, tartaric, fumaric and maleic acids, and mono- and dicarboxylic acids of formula CH₃-(CH₂)_n-COOH and HOOC-(CH₂)_n-COOH where n is 0 to 4.
- 5. The compound of Claim 1 that is a hydrochloride salt of 4-amino-3-propionylphenyl-1,4'-bipiperidine-1'-carboxylate.
- 6. A process for preparing irinotecan or a salt thereof, the process comprising a step of reacting 4-amino-3-propionylphenyl-1,4'-bipiperidine-1'-carboxylate or a salt thereof with the compound having the formula

- 7. Irinotecan or a salt thereof prepared by the process of Claim 6.
- 8. A process for preparing 7-ethyl-10-hydroxycamptothecin or a salt thereof, the process comprising a first step of reacting 4-amino-3-propionylphenyl-1,4'-bipiperidine-1'-carboxylate or a salt thereof with the compound having the formula

to form irinotecan or a salt thereof; and a second step of hydrolyzing the irinotecan or salt thereof in an acid medium to form 7-ethyl-10-hydroxycamptothecin or a salt thereof.

- 7-Ethyl-10-hydroxycamptothecin or a salt thereof prepared by the process of Claim8.
- 10. A process for preparing 4-amino-3-propionylphenyl-1,4'-bipiperidine-1'-carboxylate, the process comprising a step of reacting 1-(4-hydroxy-2-aminophenyl)-1-propanone with 4-piperidinopiperidinecarbamyl chloride.
- 11. A drug substance comprising irinotecan and/or at least one salt thereof in a therapeutically effective total amount and 4-amino-3-propionylphenyl-1,4'-bipiperidine-1'-carboxylate and/or at least one salt thereof in a detectable amount.
- 12. The drug substance of Claim 11 wherein the 4-amino-3-propionylphenyl-1,4'-bipiperidine-1'-carboxylate is present in an amount not greater than about 5% by weight.

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- 13. The drug substance of Claim 11 wherein the 4-amino-3-propionylphenyl-1,4'-bipiperidine-1'-carboxylate is present in an amount not greater than about 2.5% by weight.
- 14. The drug substance of Claim 11 wherein the 4-amino-3-propionylphenyl-1,4'-bipiperidine-1'-carboxylate is present in an amount not greater than about 1% by weight.